

Network Model of Human Resource Evaluation and Organizational Climate Interaction Phenomenon

Palmira Papsiene, Sigitas Vaitkevicius

*Vilnius Gediminas Technical University
Sauletekio al. 11, LT-10223, Vilnius, Lithuania
e-mail: palmira.papsiene@gmail.com,*

*Kaunas University of Technology
K. Donelaicio st. 73, LT-44029, Kaunas, Lithuania
e-mail: sigitas.vaitkevicius@gmail.com*

crossref <http://dx.doi.org/10.5755/j01.ee.24.3.3897>

Human resource evaluation and organizational climate interaction phenomenon, defined in the context of empirical research, is described in this paper. Prior to this, both in Lithuanian, where the research was conducted, and in the world literature the issues of human resource evaluation and organizational climate were analyzed rather widely. There are many works where they are defined rather comprehensively. In this paper, those works are reviewed, and the conceptual complex model defining the phenomenon of human resource evaluation and organizational climate is designed on their basis. This model consists of the following elements: evaluation methodology, organization of the evaluation, discussion on the evaluation, employee assessors, safety and/or explicitness, diligence and creativity, values and traditions, attractiveness of the work process, manager's relations with employees, employee interrelations and conflicts.

Empirical research methods of this model are presented in this paper, including both empirical verification arguments of the research tool and the theoretical model the empirical validation methodology. The questionnaire (based on respondent notions and attitude) was designed by the joint authors of this paper P. Papsiene and J. Vveinhardt and was verified by the methods of factorial and reliability analysis. The designed questionnaire was used for the human resource evaluation and organizational climate interaction research. Interaction of human resource evaluation and organizational climate was analyzed and interaction models were designed using the method of multivariate linear regression.

Human resource evaluation and organizational climate interaction research enabled to compose six interaction models and one complex model which is provided in the network diagram. Created models allow better understanding of human resource evaluation and organizational climate interaction as well as its forms. The research on interaction of human resource evaluation and organizational climate showed that in general those two dimensions of organizational evaluation are closely interrelated. They not only affect each other, but also form various network models that define the complexity of interaction and its general construct.

Keywords: *human resource evaluation, organizational climate, interaction, phenomenon, model.*

Introduction

Issues of human resource evaluation and organizational climate are currently discussed rather intensively (Ahmadi, 2012; Buys & Louw, 2012; Purohit & Wadhawa 2012; Mathur & Nihalani, 2011; Goyal, 2010; Srivastav, 2009; Kundu, 2007; etc.). Those issues receive rather much attention in Lithuania as well (Kaselis & Pivoras, 2012; Vilkelis, 2011; Lobanova, 2008; Pivoras & Dapkute, 2004; Vveinhardt & Skindaraite, 2012; Vveinhardt, 2010; Purlys, 2009; etc.). Work results and methods, professionalism, orientation towards results (Lobanova, 2008; Patapas & Labenskyte, 2011), personal characteristics, competence, efficiency, quality (Lobanova, 2008; Lobanova & Chlivickas, 2009; Patapas & Labenskyte, 2011), diversity of values (Guy, 2009), etc. were discussed from the perspective of human resource evaluation especially broadly and consequently. From the perspective of organizational climate, the widest research was carried out on: the connection between organizational climate and employee interrelations (Vveinhardt, 2009); changes in the

measurements of organizational climate when planning the performance improvement and seeking greater efficiency (Rekasiute-Balsiene, 2005); striving of the organization to be successful (Vveinhardt & Skindaraite, 2012), etc.

Much less attention was directed towards the analysis of interaction of human resource evaluation and organizational climate. Literature analysis carried out showed that even the phenomenon of interaction of human resource evaluation and organizational climate itself was not analyzed and reviewed deeper. Mostly there were authors' insights that originated during the implementation of human resource evaluation or organizational climate research. However, the origination of these conclusions by itself shows that there is an interaction between the aforementioned constructs, and the complex perception of this interaction as a certain phenomenon is simply required. Therefore, the main **problem of this research** is the perception of the phenomenon of interaction of human resource evaluation and organizational climate and characterization of its construct.

The aim of this research is to collect impartial data on the existing construct of human resource evaluation and organizational climate interaction using the empirical research, and create models of the operation mode of this interaction.

Research tasks:

- to carry out the review of interaction of human resource evaluation and organizational climate in the academic literature and to form the theoretical human resource evaluation and organizational climate interaction model based on it;
- in order to achieve impartiality, to validate the results of carried out empirical research of human resource evaluation and organizational climate interaction;
- to create human resource evaluation and organizational climate interaction models with reference to findings of the empirical research and to describe the phenomenon of human resource evaluation and organizational climate interaction.

Methods of the research: the method of data collection is the survey of a target group of respondents using the opinion-attitude questionnaire; methods of empirical data validation: factorial and reliability analyses; the method of human resource evaluation and organizational climate interaction modeling is multivariate linear regression.

Theoretical modeling of human resource evaluation and organizational climate

Complex analysis of the interaction of human resource evaluation (HRE) and organizational climate (OC) was barely carried out in the literature. Usually this interaction reveals itself as an additional HRE and OC evaluation retrospective (Purlys, 2009; Vanagas & Bihari-Axelsson, 2005). Reviewed HRE and OC literature, where features of evaluation of their interaction were found, also showed that usually HRE and OC interaction in authors' works reveals itself via the discussion on the connection of culture elements of the organization and indicators of its performance (Purlys, 2009) or via the analysis of phenomenon of expression of work characteristics and psychosocial stress (Vanagas & Bihari-Axelsson, 2005).

Since the fundamental base for the implemented HRE and OC interaction research is not finished from the complex perspective in the sources of other authors, in order to better describe HRE and OC interaction in this paper, HRE and OC definitions are chosen as the basis. HRE and OC possible interaction fields and potential influence directions were distinguished from their identicalness namely.

While forming the HRE and OC interaction concept, the attention was paid to the fact that OC can be the important criterion in the intention to improve HRE, since the analysis of the performed research showed that human resource evaluation and organizational climate are related (Denison, 1990; Denison *et al.*, 2003). Moreover & Dransfield (2000) indicated that OC depends on the involvement of employees into the designing of the evaluation system, predominance of feedback type in the organization, and predominant promotion system. Aforementioned elements can be attributed to HRE, since,

first of all, they define human relations, and second, define the evaluation system framework. Another important insight is the management reactivity to changes after the evaluation and their control (Ansoff, 1989), which allows linking HRE that in the Ansoff's opinion is defined by ("management reactivity" and "change ... control"), and OC which is defined by the OC percept created on the outcome of "management reactivity" and "change ... control".

When discussing HRE in the literature, the following is distinguished as well: knowledge of evaluation purposes, creation of the evaluation system, evaluation methodologies (EM), selection of assessors (hereinafter referred to as employee assessors (EA)) and data sources (hereinafter called the information sources (IS)) (Bakanauskiene, 2008; Ozerov, 2008; Lobanova, 2008). It is worth to mention that the aforementioned authors analyze HRE in the context of motivation, which can be linked to OC. In the opinion of the authors of the paper, this is because the OC culture forms itself via the social behavior of individuals, which is changed and formed by the motivation system. This is partially confirmed by J. Vveinhardt (2007) as well, who claims that "whatever the importance of technologies is, the base of the organization are humans". The correctness of the other part of the concept can be substantiated by the insight of R. Rekasiute-Balsiene (2005), where she indicates that OC creates the atmosphere of interpersonal employee functioning at the workplace. Thus, frequently the interaction between HRE and OC becomes apparent in the pattern of HRE and OC concepts and their harmony.

Another important HRE element for the definition of HRE and OC interaction is the evaluation organization (EO), showing the efficiency of personnel evaluation (Grote, 2002; Martin, 2009; Yee & Chen, 2009). Here, just as in the previous cases, "personnel evaluation efficiency" implicitly defines the OC formation factor, which can link HRE and OC.

Evaluation discussion (ED) is also distinguished in the HRE construct, which has meaning if EO does not create negative consequences for employees and employees are satisfied with evaluation results (Klimova, 1999; Bazarova & Eremina, 2002). The latter HRE characteristic is distinguished in order to model EO and ED relation with OC, since in the reviewed literature the description of their influence on OC was not found. Authors' insights reviewed during the analysis of psychological and management literature (Stetzer *et al.*, 1997; Guscinskiene, 1999, Patterson *et al.*, 2004; Rekasiute-Balsiene, 2005; Dickson *et al.*, 2006; Kundu, 2007; Vveinhardt, 2010; Vveinhardt, 2010; Vveinhardt & Skindaraite, 2012; Holloway, 2012) created the possibility to construct the theoretical model of interaction of organizational climate concepts, which is based on the following factors: safety/explicitness (SE), diligence and creativity (DC), values and traditions (T), manager's relations with employees (MR), employee interrelations (EI), appeal of work process (A) and conflicts (CF).

Discussed concepts of HRE and OC structure allowed rethinking possible logical models of interactions of elements of OC and HRE concepts, which are presented in the network model of interaction of HRE and OC concepts created on the grounds of theoretical modeling (see Fig. 1).

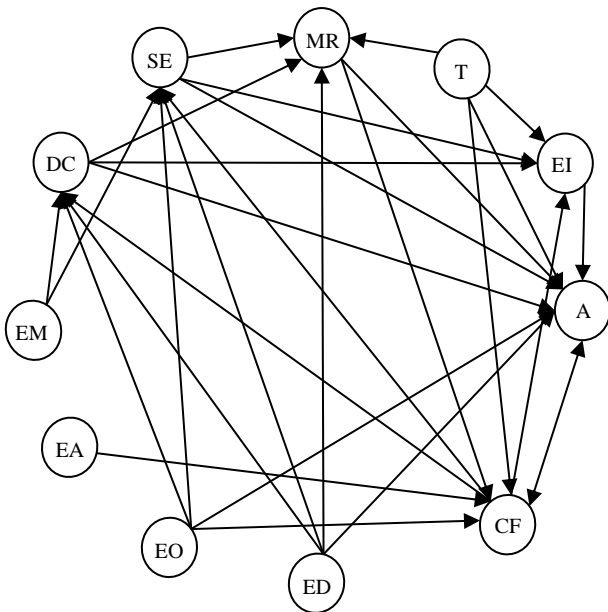


Figure 1. Theoretical network model of interaction of HRE and OC expanded concepts

Created theoretical model of interaction of HRE and OC concepts shows that the functional interaction is possible between HRE and OC, empirical foundation of which would create possibilities to become familiarized with HRE and OC in a complex way.

Verification of the Model of Human Resource Evaluation and Organizational Climate Interaction Using Methods of Factorial and Reliability Analysis

Empirical validation of the network model of interaction of HRE and OC concepts was carried out using the questionnaire methodology. Methods of factorial and reliability analysis were chosen as grounds for the verification, since they allow evaluating not only connection of variables, but also the empirical quality of the connection.

There were 131 close-end statements in the questionnaire designed by P. Papsiene and J. Vveinhardt, seven of which were demographical and 124 were opinion-

attitude evaluation questions (hereinafter referred to as test steps). The structure of test steps is provided in Table 1.

Methods of descriptive and multivariate statistics were used for the data processing. Statistical data were processed using statistics software package SPSS.15 and MS Excel electronic spreadsheet.

Table 1

Number of test steps

| State-ments | Number of items | State-ments | Number of items |
|-------------|------------------|-------------|-----------------|
| HRE | Total: 85 | SE | 5 |
| EM | 25 | DC | 5 |
| EA | 3 | MR | 6 |
| IS | 4 | T | 5 |
| ED | 6 | EI | 8 |
| EO | 47 | A | 4 |
| OC | Total: 39 | CF | 5 |

Number of research respondents is (N = 507).

Human resource evaluation (HRE) factorial analysis was carried out by evaluating the evaluation methodology EM, evaluation organization EO, evaluation discussion ED and employee assessors EA. Organizational climate (OC) factorial analysis was carried out by evaluating safety and explicitness SE, diligence and creativity DC, values and traditions T, appeal of work process A, manager’s relations with employees MR, employee interrelations EI and conflicts CF.

In order to evaluate the content validity of the questionnaire, HRE and OC statements were factorized using the principal component method, applying the rotation of factorial axes according to the maximum dispersion (Varimax rotation) and using the method of evaluation of minimum distance between two critical points – squared Euclidian distance. It was decided not provide tables of primary factorial and reliability analysis. It should be noted that during the primary factorization, all obtained factors were statistically significant, high factor scores were obtained, sufficient variance explained and high Cronbach’s alpha coefficients were obtained.

The secondary HRE factorization carried out is characterized by rather high inner content of answers. Cronbach’s alpha coefficient values of 0.70 and 0.86 indicate this (see Table 2).

Table 2

Results of the secondary factorization of evaluation methodology (EM) and evaluation organization (EO)

| EM: | Data sources | Establishment of evaluation purposes | Creation of evaluation system | Selection of evaluation method | EO: | Collection and processing of evaluation information |
|--------|--------------|--------------------------------------|-------------------------------|--------------------------------|-------|---|
| Factor | 0.60 | 0.80 | 0.81 | 0.68 | | 0.90 |
| i/tt | 0.37 | 0.56 | 0.55 | 0.44 | | 0.78 |
| | α | r_{mean} | r_{min} | r_{max} | % | KMO |
| EM | 0.70 | 0.37 | 0.27 | 0.58 | 53.64 | 0.71 |
| EO | 0.86 | 0.62 | 0.38 | 0.82 | 72.63 | 0.77 |

EM factor explains 53.64 percent of the dispersion of all variables. It should be noted that all indexes are statistically significant, since rather high factorial weights of variables, KMO sampling adequacy criterion of 0.71 and other statistical indexes indicate this.

EO factor explains 72.63 percent of the dispersion of all included variables. It should be noted that the factor is statistically significant, just as for EM. Obtained KMO sampling adequacy criterion equals to 0.77.

The secondary OC factorial analysis carried out is characterized by rather high inner content of answers. Cronbach’s alpha coefficient values of 0.77 and 0.88 indicate this (see Table 3).

Results of factorization of relations and communication variables are reflected in Table 3. The obtained factor explains 69.0 percent of the dispersion of all items. It should be noted that indexes are statistically significant, since high factorial weights, KMO sampling adequacy criterion of 0.67 and other indice’ values indicate this.

Organizational climate factor explains 63.51 percent of the dispersion of all items. It should be noted that factors are

statistically significant; their rather high factorial weights indicate this. KMO sampling adequacy criterion is 0.81.

Table 3

Results of the secondary factorization of organizational climate (OC)

| | | | | | | | | | | |
|--------|----------|------------|-----------|-----------|------|------|------|-------|------|------|
| RC | MR | EI | C | OC | SE | DC | T | A | CF | RC |
| Factor | 0.86 | 0.77 | 0.85 | 0.68 | 0.89 | 0.81 | 0.71 | 0.87 | 0.80 | 0.57 |
| i/tt | 0.67 | 0.53 | 0.65 | 0.44 | 0.81 | 0.81 | 0.60 | 0.78 | 0.69 | 0.65 |
| | α | r_{mean} | r_{min} | r_{max} | | | | % | | KMO |
| RC | 0.77 | 0.53 | 0.47 | 0.63 | | | | 69.00 | | 0.67 |

Note: RC – relations and communication, C – communication among employees.

In summary, it is could be stated that it was possible to construct HRE and OC interaction evaluation tool, which is characterized by relatively high inner content and good content validity.

Methods of the Construction of the Empirical Model of Human Resource Evaluation and Organizational Climate Interaction Phenomenon

HRE and OC interaction phenomenon is described using the method of multivariate linear regression analysis. This method was chosen due to good SPSS user interface and correspondence to the measured content. In addition, it is worth to mention that in the SPSS environment multivariate linear regression has integrated sampling quality and interaction quality evaluation tools that allow evaluating the statistical validity of statements prior to describing model characteristics. Quality of sampling and interaction in the SPSS regression analysis output was evaluated using ANOVA results. In this case, SSR and SSE ratio was taken as the informativity of the created model in the respective sampling (interaction quality indicator), and the level of statistical significance *p* was taken as the indicator of sufficiency of the sampling size. It should be mentioned that SPSS has more integrated indicators of sampling quality evaluation, but only the aforementioned were presented. In this case, it must be noted that selected variables satisfy the sampling normality condition and they are not collinear, therefore, the obtained results statistically define models of interaction of structural elements of HRE and OC found in the research sampling.

In order to achieve greater representation, HRE and OC network diagram is dissociated into separate figures (see Fig. 2–7), where it is showed how dependent variables interact with independent ones. The hierarchical-chronological connection structure, which becomes meaningful by connecting single connection constructs into one common figure reproducing the HRE and OC interaction constructive network model, is reproduced in those figures as well (see Fig. 8).

Empirical Model of Human Resource Evaluation and Organizational Climate Interaction Phenomenon

Regression analysis of diligence and creativity (DC) (see Table 4 and Fig. 2) showed that DC (HRE) is affected by EM, EO, ED (HRE) and CF (OC). The obtained

material expression of the connection, i.e. the equation is as follows:

$$DC = 0.167EM + 0.188EO + 0.232ED + 0.408CF$$

This indicates that the multidimensional dependence between the analyzed construct elements exists in the analyzed interaction model, which is important to evaluate not only on HRE and OC, but on the lower level as well.

Table 4

Regression analysis of diligence and creativity

| Sum of squares | | R | R ² | ANOVA <i>p</i> |
|----------------|--------|-------|----------------|----------------|
| SSR | SSE | | | |
| 5457.018 | 80.162 | 0.993 | 0.986 | 0.00 |
| Variables | EM | EO | ED | CF |
| r | 0.988 | 0.988 | 0.970 | 0.989 |
| B | 0.167 | 0.188 | 0.232 | 0.461 |

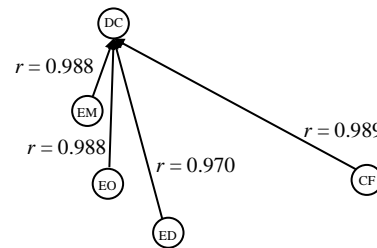


Figure 2. Model of the dependence of diligence and creativity on the human resource evaluation and organizational climate

Safety and explicitness (SE) regression analysis (see Table 5 and Fig. 3) showed that SE (OC) depends on EM, EO, ED (HRE) and CF (OC). The mathematical model of this connection is as follows:

$$SE = 0.107EM + 0.271EO + 0.162ED + 0.564CF$$

The created model shows that in the evaluation of the influence of employee safety and/or explicitness HRE factors predominate.

Table 5

Regression analysis of safety and/or explicitness

| Sum of squares | | R | R ² | ANOVA <i>p</i> |
|----------------|--------|-------|----------------|----------------|
| SSR | SSE | | | |
| 7332.878 | 99.082 | 0.993 | 0.987 | 0.00 |
| Variables | EM | EO | ED | CF |
| r | 0.987 | 0.990 | 0.965 | 0.991 |
| B | 0.107 | 0.271 | 0.162 | 0.564 |

Table 7

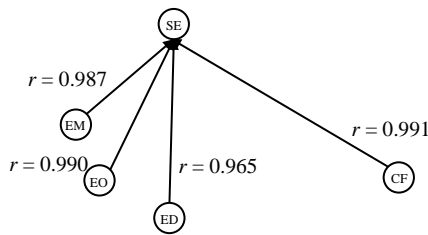


Figure 3. Model of the dependence of safety and/or creativity on the human resource evaluation and organizational climate

Manager’s relations with employees MR (OC) (see Table 6 and Fig. 4) are determined by DC, T, SE (OC) and ED (HRE). The equation of dependence of this connection is as follows:

$$MR = -0.064SE + 0.443DC + 0.267ED + 0.426T$$

The latter model shows that manager’s relations with employees are mostly formed by OC; however, evaluation discussion makes influence as well. It is worth to note that EM and EO do not directly influence MR. This is probably due to the fact that the methodical (it is defined by EM) part is not visible to employees directly, and the procedural (it is defined by EO) part is carried out by external organizations, especially in large companies. Of course, those statements should be substantiated or declined in the future by additional research.

Table 6

Regression analysis of manager’s relations with employees

| Sum of squares | | R | R ² | ANOVA p |
|----------------|---------|-------|----------------|---------|
| SSR | SSE | | | |
| 5770.717 | 147.883 | 0.988 | 0.975 | 0.00 |
| Variables | ED | DC | T | SE |
| r | 0.968 | 0.984 | 0.983 | 0.980 |
| B | 0.276 | 0.443 | 0.426 | -0.064 |

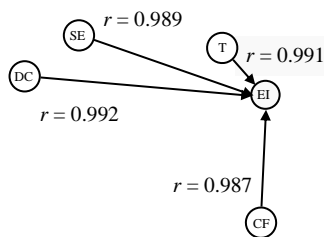


Figure 4. Model of the dependence of manager’s relations on the human resource evaluation and organizational climate

Employee interrelations EI (OC) are determined by T, SE, DC and CF (see Table 7 and Fig. 5). Mathematical expression of employee interrelations is as follows:

$$EI = 0.358T + 0.016SE + 0.469DC + 0.034CF.$$

All EI elements, as well as EI, are component parts of OC. Those results show that meaningful connections are formed both between HRE and OC constructs and inside of them.

Regression analysis of employee interrelations

| Sum of squares | | R | R ² | ANOVA p |
|----------------|--------|-------|----------------|---------|
| SSR | SSE | | | |
| 4607.016 | 52.984 | 0.994 | 0.989 | 0.00 |
| Variables | DC | SE | T | CF |
| r | 0.992 | 0.989 | 0.991 | 0.987 |
| B | 0.469 | 0.016 | 0.358 | 0.034 |

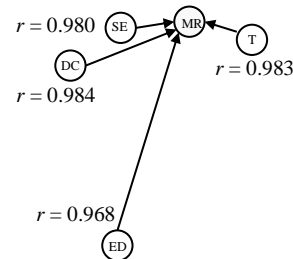


Figure 5. Model of the dependence of employee interrelations on the human resource evaluation and organizational climate

Appeal of work process A (OC) is influenced by T, MR, SE, DC, CF, EI (OC factors) and EO and ED (HRE factors) (see 8 and Fig. 6). The latter connection is characterized by the following linear dependence form:

$$A = -0.147MR + 0.135EI + 0.254T + 0.049SE + 0.271DC + 0.225EO + 0.075ED + 0.251CF.$$

The work process is different from both analyzed construct elements due to the fact that it is the result factor in the relations of employees and company, which shows how employees evaluate the work performed in the company. Moreover, this connection model shows that employees’ attitude towards work that is important for the company mostly depends on employees themselves, and only then on HRE factors. Thus, employee involvement in the creation of the work environment appealing to them is important.

Table 8

Regression analysis of work process appeal

| Sum of squares | | R | R ² | ANOVA p |
|----------------|--------|--------|----------------|---------|
| SSR | SSE | | | |
| 7392.094 | 35.343 | 0.998 | 0.995 | 0.00 |
| Variables | T | MR | SE | DC |
| r | 0.993 | 0.979 | 0.993 | 0.993 |
| B | 0.254 | -0.147 | 0.049 | 0.271 |
| Variables | EO | CF | EI | ED |
| r | 0.994 | 0.994 | 0.992 | 0.968 |
| B | 0.225 | 0.251 | 0.135 | 0.075 |

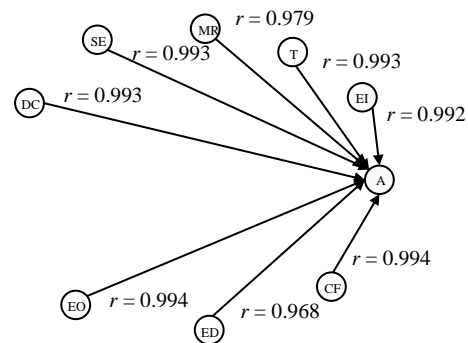


Figure 6. Model of the dependence of the appeal of work process on the human resource evaluation and organizational climate

Regression analysis of conflicts CF (OC) (see Table 9 and Fig. 7) showed that conflicts are influenced by MR, T, A (OC) and EA, as well as EO (HRE). The mathematical dependence equation of this connection is as follows:

$$CF = 0.551A + 0.084T + 0.067MR + 0.099EA + 0.233EO.$$

Conflicts in the company determine working conditions; therefore, it was especially important to establish what effect evaluation procedures have on them. Results showed that A has the greatest influence on CF, and EO takes the second place, influencing CF less almost two times. It is important to note that it was established during the research that CF and A interaction is characterized by reciprocity, both CF affects A and A affects CF. Everything depends on the stimulus, i.e. company attitude, if it is internal, related to the company, or external, related to employees themselves and non-working environment.

Table 9

Regression analysis of conflicts

| Sum of squares | | R | R ² | ANOVA | |
|----------------|--------|-------|----------------|-------|-------|
| SSR | SSE | | | p | |
| 6989.545 | 72.975 | 0.995 | 0.990 | 0.00 | |
| Variables | SV | DV | VO | T | A |
| r | 0.987 | 0.967 | 0.991 | 0.99 | 0.994 |
| B | 0.067 | 0.099 | 0.233 | 0.084 | 0.551 |

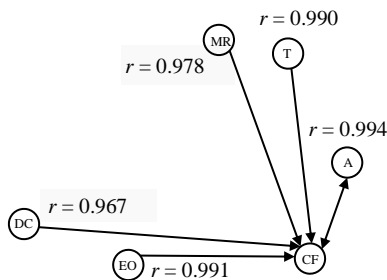


Figure 7. Model of the connection of dependence of conflicts on the human resource evaluation and organizational climate

In summary, it is could be stated that it was possible to create the HRE and OC interaction model (see Fig. 8), which allows not only becoming familiarized with HRE and OC interaction, but also evaluating individual connection structures forming themselves in this interaction. This is the HRE and OC interaction network model, where the network interaction can be defined both by the factor (see Fig. 2-7) and result feature (see Fig. 8). This knowledge allowed forming HRE and OC interaction phenomenon model, which provides possibilities for more comprehensive analysis of HRE and OC interaction.

Generalization and Discussion

The performed HRE and OC interaction research revealed that in general those two dimensions of organizational evaluation are closely interrelated. They not only affect each other, but form various connection models as well.

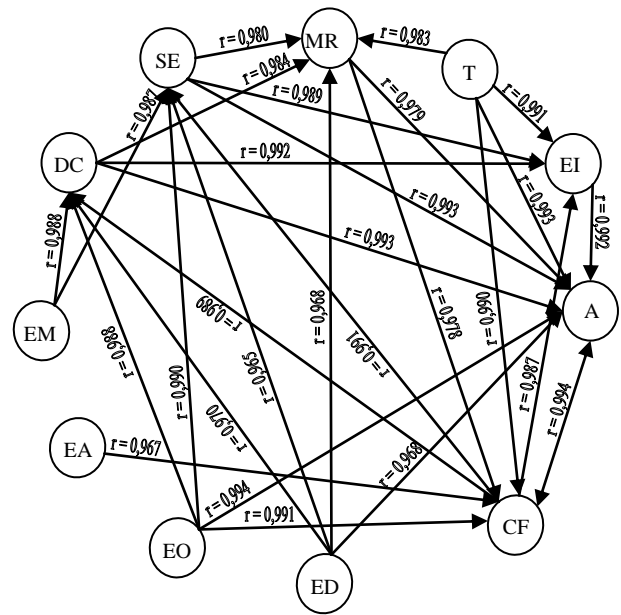


Figure 8. Human resource evaluation and organizational climate network connection model

Namely, the latter models allowed becoming familiar with the HRE and OC interaction phenomenon better. Of course, although this research widened the limits of existing knowledge, it also showed that there are many questions related to HRE and OC interconnection that must be answered.

One of them is on the validation of established interaction models in greater variety of companies. The limitation of this research as phenomenological is in company variety. Since it was important to become familiarized with HRE and OC interaction phenomenon better, during this research the phenomenological approach was chosen, therefore, only those companies were selected for this research, where it was known for a fact about the existence of such phenomenon. It was done to become better familiarized with the phenomenon itself and to describe its mode of operation in more detail. However, upon further analysis, at least two directions of familiarizing oneself with this phenomenon exist: the search for new HRE and OC interaction forms and the research of spread of the existing interaction model in various populations.

Another question giving sense to the new research direction of the described HRE and OC phenomenon is as follows: what should be the HRE and OC interaction expressions, so that HRE processes carried out in the company, which are necessary for company performance control and ensuring the performance efficiency, would be in harmony with OC and would affect it positively. This direction becomes meaningful from the organization management perspective, when companies seek the absolute balance of performed activities. In cases of performing such research exactly, science helps to reveal what balance between HRE and OC should be maintained in the company in order to achieve the efficient management.

Conclusions

- Performed human resource evaluation and organizational climate interaction research has created the following presumptions:

- to construct the theoretical network human resource evaluation and organizational climate interaction model, which integrates five human resource evaluation and seven organizational climate structure elements, between which the qualitative interaction is possible;

- to analyze the theoretical network human resource evaluation and organizational climate interaction model and construct six connection models based on this research, which define the dependence of result index on the factors affecting it. The model of complex interaction between the elements of the structure of human resource evaluation and organizational climate was created on the grounds of those connection models presented in the form of network diagram in the paper.

- Opinion-attitude questionnaire prepared during the research provides the possibility to measure the human resource evaluation and organizational climate interaction.

Opinion-attitude questionnaire was verified using methods of factorial and reliability analysis. The questionnaire is characterized by a high inner content; therefore, statistic arguments are sufficient for the substantiation of the created models.

- Empirical inspection of the human resource evaluation and organizational climate interaction carried out using the method of multivariate linear regression served its purpose and allowed creating multivariate linear dependence models of individual research constructs.

- Human resource evaluation and organizational climate interaction model was created as a result of the achievements named in the aforementioned conclusions, which allows not only familiarizing oneself with the human resource evaluation and organizational climate interaction, but also evaluating individual connection structures forming themselves in this interaction. This is human resource evaluation and organizational climate interaction model, where network interaction can be defined both according to the factor and according to the result feature.

References

- Ahmadi, S. A. A. (2012). Performance Evaluation of Tehran Province Payame Noor University Staffs (Open University) by AHP Technique. *Interdisciplinary Journal of Contemporary Research in Business* 4 (1), 225-234.
- Ansoff, I. [Ансофф, И.]. (1989). *Стратегическое управление*. Москва: Экономика.
- Bakanauskienė, I. (2008). *Personalo valdymas*. Kaunas: Vytauto Didžiojo universiteto leidykla.
- Bazarova, T. J., & Eremina, B. L. [Базарова, Т. Ю.; Еремина, Б. Л.]. (2002). *Управление персоналом*. Москва: Юнити.
- Buys, J., & Louw, J. (2012). A Process Evaluation of a Supervisory Development Programme. *South African Journal of Human Resource Management* 10 (3), 1-13.
- Denison, D. R. (1990). *Corporate Culture and Organizational Effectiveness*. New York: Wiley.
- Denison, D. R., Haaland, S., & Goelzer, P. (2003). Corporate Culture and Organizational Effectiveness: is There a Similar Pattern Around the World? *Advances in Global Leadership* (3), 205-227.
- Dickson, M. W., Resick, C. J., & Hanges, P. J. (2006). When Organizational Climate is Unambiguous, it is Also Strong. *Journal of Applied Psychology*, 91 (2), 351-364. <http://dx.doi.org/10.1037/0021-9010.91.2.351>
- Dransfield, R. (2000). *Human Resources Management (Studies in Economics & Business)*. Boston: Heinemann.
- Goyal, N. K. (2010). HRD Climate Survey of Government Aided Senior Secondary Schools in Uttar Pradesh. *International Transactions in Humanities and Social Sciences* 2(2), 261-275.
- Grote, R. C. (2002). *Performance Appraisal Question and Answer Book: A Survival Guide for Managers*. New York: American Management Association.
- Guy, P. B. (2009). Still the Century of Bureaucracy?: The Roles of Public Servants. *Viesoji Politika ir Administravimas-Public Policy and Administration* (30), 7-21.
- Guscinskiene, J. (1999). *Organizacijų sociologija*. Kaunas: Technologija.
- Holloway, J. B. (2012). Leadership Behavior and Organizational Climate: an Empirical Study in a Non-Profit Organization. *Emerging Leadership Journeys* 5 (1), 29-35.
- Yee, C. C., & Chen, Y. Y. (2009). Performance Appraisal System Using Multifactorial Evaluation Model. *Proceedings of World Academy of Science: Engineering & Technology* (41), 231-235.
- Kaselis, M., & Pivoras, S. (2012). Valstybės tarnautojų veiklos vertinimas pagal rezultatus: taikymo išsukiai Lietuvoje. *Viesoji Politika ir Administravimas-Public Policy and Administration* 11(1), 139-152.
- Klimova, E. A. [Климова, Е. А.] 1999. *Психологическая диагностика в управлении персоналом: учебное пособие для сотрудников кадровых служб*. Москва: Российское психологическое общество.
- Kundu, K. (2007). Development of the Conceptual Framework of Organizational Climate. *Vidyasagar University Journal of Commerce*, (12), 99-108.
- Lobanova, L. (2008). Personalo vertinimas viesajame sektoriuje: tobulinimo galimybes. *Viesasis Administravimas-Public Administration* 4(20), 52-60.

- Lobanova, L., & Chlivickas, E. (2009). Zmogiskuju istekliu kompetenciju vertinimas viesajame sektoriuje. *Viesasis Administravimas-Public Administration* 1 (21), 63-72.
- Mayer, B. W., Whitfield, A., & Godkin, L. (2001). Promoting Organization-Based Self-Esteem in an Rganization: the Role of Organizational Climate Variables. *Journal of Social Behavior & Personality* 16 (1), 81-96.
- Martin, J. (2009). *Human Resource Management*. London: Sage.
- Mathur, A., & Nihalani, M. (2011). A Study of Organizational Climate for the Handicrafts Industry of Jodhpur. *SIES Journal of Management* 7 (2), 37-45.
- Ozerov, M. J. [Озеров, М. Я.] (2008). *Оценка качества трудового потенциала персонала коммерческого банка*. Томск: Издательство ВШБ Томский государственный университет.
- Patapas, A., & Labenskyte, G. (2011). Organizacines kultūros ir vertybiu tyrimas N apskrities valstybineje mokesciu inpekciyoje. *Viesoji Politika ir Administravimas-Public Policy and Administration* 10 (4), 589 – 603.
- Patterson, M., Warr, P., & West, M. (2004). Organizational Climate and Company Productivity: The Role of the Employee Affect and Employee Level. *Journal of Occupational and Organizational Psychology* (77), 193-216. <http://dx.doi.org/10.1348/096317904774202144>
- Pivoras, S., Dapkute, R. (2004). Tarnybinės veiklos vertinimas Lietuvos valstybės tarnybos personalo vadyboje. *Politologija-Political Science* 1(33), 56-74.
- Purlys, C. (2009). Organizacijų kultūra ir jos vertinimo modeliavimas. *Organizacijų Vadyba: Sisteminiai Tyrimai-Management of Organizations: Systematic Research* (49), 97-108.
- Purohit, B., & Wadhwa, A. (2012). Organisational Climate From View Point of Motivation in District Hospital, India. *Health*, 4 (7), 400-406. <http://dx.doi.org/10.4236/health.2012.47063>
- Rekasiute-Balsiene, R. (2005). Verslo organizacijų klimato ivertinimo galimybes. *Psichologija-Psychology* (31), 86-100.
- Srivastav, A. K. (2009). Heterogeneity of Organisational Climate. *Research and Practice in Human Resource Management* 17 (2), 1-13.
- Stetzer, A., Morgenson, F. P., & Anderson, E. L. (1997). Organizational Climate and Ineffectiveness: Evidence From 25 Outdoor Work Crew Divisions. *Journal of Quality Management* 2 (2), 251-265. [http://dx.doi.org/10.1016/S1084-8568\(97\)90006-7](http://dx.doi.org/10.1016/S1084-8568(97)90006-7)
- Vanagas, G., & Bihari-Axelsson, S. (2005). The Factors Associated to Psychosocial Stress Among General Practitioners in Lithuania. Cross-sectional Study. *BMC Health Services Research* (5), 45-52. <http://dx.doi.org/10.1186/1472-6963-5-45>.
- Vilkelis, G. (2011). Viesojo administravimo institucijų personalo tarnybos ir ju veikla: administracinis teisinis reglamentavimas ir jo tobulinimas. *Viesasis Administravimas-Public Administration* 4 (32), 90-96.
- Vveinhardt, J. (2007). Zmogiskuju istekliu valdymas siuolaikineje organizacijoje: viesojo sektoriaus aspektai. *Profesines Studijos: Teorija ir Praktika-Professional Studies: Theory and Practice* (3), 132-144.
- Vveinhardt, J. (2009). Mobingo kaip diskriminacijos darbuotoju santykiuose poveikis organizacijos klimatui. *Verslas: Teorija ir Praktika-Business: Theory and Practice* 10 (4), 285-297. <http://dx.doi.org/10.3846/1648-0627.2009.10.285-297>
- Vveinhardt, J. (2010). Organizacijos klimato bukle padalinio ir organizacijos lygmenyse: tyrimo rezultatu lyginamoji analize. *Organizacijų Vadyba: Sisteminiai Tyrimai-Management of Organizations: Systematic Research* (54), 115-129.
- Vveinhardt, J., & Skindaraite, I. (2012). Organizacijos klimato bukle diagnostiniai matavimai: sociodemografiniu savybiu parametras. *Organizacijų Vadyba: Sisteminiai Tyrimai-Management of Organizations: Systematic Research* 62, 129-146.

Palmira Papšienė, Sigitas Vaitkevičius

Žmogiškųjų išteklių vertinimo ir organizacijos klimato tarpusavio sąveikos fenomeno tinklinis modelis

Santrauka

Šiame straipsnyje aprašomas žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos fenomenas, kuris apibūdinamas empirinio tyrimo kontekste. Straipsnis parengtas šiuo metu gana intensyviai nagrinėjamų žmogiškųjų išteklių vertinimo ir organizacijos klimato klausimų pagrindu (Ahmadi, 2012; Buys, Louw, 2012; Purohit, Wadhawa 2012; Mathur, Nihalani, 2011; Goyal, 2010; Srivastav, 2009; Kundu, 2007; Kaselis, Pivoras, 2012; Vilkelis, 2011; Lobanova, 2008; Pivoras, Dapkutė, 2004; Vveinhardt, Skindaraite, 2012; Vveinhardt, 2010; Purlys, 2009 ir kt.), kurie tapo fundamentu tiriant žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveiką.

Itin plačiai ir nuosekliai žmogiškųjų išteklių vertinimo perspektyvoje buvo aptariami darbo rezultatai ir metodai, profesionalumas, orientacija į rezultatus (Lobanova, 2008; Patapas, Labenskytė, 2011), asmeninės savybės, kompetencija, efektyvumas, kokybė (Lobanova, 2008; Lobanova, Chlivickas, 2009; Patapas, Labenskytė ir kt. 2011), vertybių įvairovė (Guy, 2009). Organizacijos klimato perspektyvoje plačiausiai nagrinėti: ryšys tarp organizacijos klimato ir darbuotojų tarpusavio santykių (Vveinhardt, 2009); organizacijos klimato pokyčiai planuojant veiklos tobulinimą bei siekiant didesnio efektyvumo (Rekasiūtė-Balsienė, 2005); organizacijos siekiai būti sėkmingai veikiančia organizacija (Vveinhardt, Skindaraite, 2012). Tai iki šiol esminiai argumentai, leidžiantys suprasti tyrinėjamų reiškinių struktūrą ir raiškos formų įvairovę.

Kur kas mažiau dėmesio skirta žmogiškųjų išteklių vertinimui ir organizacijos klimato sąveikai tirti. Atlikta literatūros analizė parodė, kad šioje srityje net paties žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos fenomenas nėra išsamiau nagrinėtas ir pažintas. Dažniausiai tai yra autorių išvalgos, kurios atsirado atlikus arba žmogiškųjų išteklių vertinimo, arba organizacijos klimato tyrimus. Tačiau vien pats tokių išvadų atsiradimas

rodo, jog sąveika tarp minėtų konstruktyvų egzistuoja, tiesiog reikalingas šios sąveikos, kaip tam tikro fenomeno kompleksinis pažinimas. Todėl pagrindinė šio tyrimo problema - žmogiškųjų išteklių vertinimo ir organizacijos klimato tarpusavio sąveikos fenomeno pažinimas bei jo konstrukto apibūdinimas.

Šio tyrimo tikslas – naudojant empirinį tyrimą surinkti objektyvius duomenis apie egzistuojantį žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos konstrukta bei suformuoti šios sąveikos veiksena modelius.

Tyrimo uždaviniai:

Atlikti mokslinės literatūros apie žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveiką apžvalgą bei jos pagrindu suformuoti teorinį žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos modelį.

Siekiant objektyvumo validuoti atlikto žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos empirinio tyrimo rezultatus.

Remiantis empirinio tyrimo duomenimis sudaryti žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos modelius bei aprašyti žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos fenomeną.

Tyrimo metodai: duomenų rinkimo metodas - tikslinės respondentų grupės apklausa nuomonių-nuostatų klausimynu; duomenų empirinės validacijos metodai: faktorinė ir reliabilumo analizės; žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos modeliavimo metodas - tiesinė daugiamatė regresija.

Sukonstruotą žmogiškųjų išteklių vertinimo modelį sudaro šie elementai: vertinimo metodologija, vertinimo organizavimas, vertinimo aptarimas, darbuotojų vertintojai, saugumas ir /arba apibrėžtumas, darbštumas ir kūrybiškumas, vertybės ir tradicijos, darbo proceso patrauklumas, vadovo santykiai su darbuotojais, darbuotojų tarpusavio santykiai ir konfliktai.

Toliau šiame straipsnyje pateikiama šio modelio empirinio tyrimo metodika, kuri apima tiek tyrimo instrumento empirinio verifikavimo argumentus, tiek ir teorinio modelio empirinio patikrinimo metodologines nuostatas. Žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos tyrimui panaudotas straipsnio autorių sudarytas nuomonių-nuostatų klausimynas, kuris verifikuotas faktorinės ir reliabilumo analizės metodais, nes jie leidžia įvertinti ne tik kintamųjų sąryšį, bet ir šio sąryšio empirinę kokybę.

Klausimyne, sudarytame P. Papšienės ir J. Vveinhardt, iš viso buvo 131 uždarojo tipo teiginių, iš kurių septyni demografiniai ir 124 nuomonių-nuostatų vertinamieji klausimai (toliau vadinami testo žingsniais), kurie empirinės verifikacijos metu buvo sujungti į penkias žmogiškųjų išteklių valdymo turinį apibūdinančias ir septynias organizacijos klimato grupes. Duomenims apdoroti taikyti aprašomosios ir daugiamatės statistikos metodai. Statistiniai duomenys apdoroti naudojant statistikos programų paketą SPSS.15 ir MS Excel elektroninę skaičiuoklę. Tyrimo respondentų skaičius (N = 507).

Žmogiškųjų išteklių vertinimo kintamųjų faktorinės analizės metu sukurti šie faktoriniai indeksai: vertinimo metodologija, vertinimo organizavimas, vertinimo aptarimas, darbuotojų vertintojai ir duomenų šaltiniai. Organizacijos klimato kitamųjų faktorinė analizė leido sukurti: saugumo ir/ apibrėžtumo, darbštumo ir kūrybiškumo, vertybių ir tradicijų, darbo proceso patrauklumo, vadovo santykių su darbuotojais, darbuotojų tarpusavio santykių, ir konfliktų faktorinius indeksus. Išskyrus duomenų šaltinių indeksus, atlikus tyrimą, visi kiti įtraukti į tinklinį žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos modelį. Klausimyno konsistencinis validumas tikrintas žmogiškųjų išteklių vertinimo ir organizacijos klimato teiginius faktorizuojant principinių komponentų metodu, taikant faktoriųjų ašų sukūpimą pagal didžiausią sklaidą (Varimax rotaciją) ir panaudojant artimiausio tarp dviejų kritinių taškų nuotolio įvertinimo metodą - kvadratinį euklidinį nuotolį.

Žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveika tirta ir sąveikos modeliai konstruoti daugiamatės tiesinės regresijos metodu. Pastarasis metodas pasirinktas dėl geros SPSS vartotojo sąsajos ir atitikimo matuojamam turiniui. Sudarytos tyrimo imties ir žmogiškųjų išteklių vertinimo bei organizacijos klimato sąveikos kokybė SPSS regresinės analizės išvestyje įvertinta ANOVA rezultatais bei kitais rodikliais. Parinkti kintamieji tenkina imties normalumo sąlygą bei nėra kolinearūs, todėl gauti rezultatai statistiškai apibūdina tyrimo imtyje atrastus žmogiškųjų išteklių vertinimo ir organizacijos klimato struktūrinių elementų tarpusavio sąveikos modelius.

Šiame straipsnyje, siekiant didesnio vaizdumo, žmogiškųjų išteklių vertinimo ir organizacijos klimato, tinklinis grafikas išskaidytas į šešis atskirus paveikslus, iš kurių matosi kaip priklausomas kintamasis sąveikauja su nepriklausomais. Šiuose paveiksluose atkartota ir hierarchinė-chronologinė sąryšių struktūra, kuri įsiprasmina apjungus pavienius sąryšių konstruktus į vieną bendrą žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos konstruktyvo tinklinį modelį atvaizduojantį paveikslą. Sudaryti modeliai leidžia geriau pažinti žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveiką bei jos formas.

Atliktas žmogiškųjų išteklių vertinimo ir organizacijos klimato tarpusavio sąveikos tyrimas atskleidė, jog iš esmės šios dvi organizacijos vertinimo dimensijos yra glaudžiai susijusios. Jos ne tik veikia viena kitą, bet kartu formuoja įvairius ryšių modelius. Pastarieji leidžia geriau pažinti žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos fenomeną. Šis tyrimas ne tik papildė esamo pažinimo ribas, tačiau kartu parodė, jog dar į daug žmogiškųjų išteklių vertinimo ir organizacijos klimato tarpusavio sąryšių liečiančių klausimų reikia atsakyti.

Vienas iš jų yra: nustatytų sąveikos modelių validacija didesnėje organizacijų įvairovėje. Būtent šio, kaip fenomenologinio tyrimo ribotumas yra organizacijų įvairovė. Šio tyrimo metu (kadangi buvo svarbu geriau pažinti žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos fenomeną), pasirinkta fenomenologinė prieiga, todėl šiam tyrimui buvo atrinktos tik tos organizacijos, kuriose tikrai buvo žinoma, kad toks fenomenas egzistuoja. Tuo buvo siekiama geriau pažinti patį fenomeną ir išsamiau aprašyti jo veikseną. Tačiau toliau jį tyrinėjant, galimos bent dvi šio fenomeno pažinimo kryptys: tai paieška naujų žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos formų bei esamos sąveikos modelio paplitimo įvairiose populiacijose tyrimai.

Kitas klausimas, įprasminantis naują aprašyto žmogiškųjų išteklių vertinimo ir organizacijos klimato fenomeno tyrimo kryptį yra: kokios žmogiškųjų išteklių vertinimo ir organizacijos klimato sąveikos išraiškos turėtų būti, kad organizacijoje vykdomi žmogiškųjų išteklių vertinimo procesai, būtini organizacijos veiklos kontrolei ir veiklos efektyvumui užtikrinti, derėtų su organizacijos klimatu bei pozityviai jį veiktų.

Raktažodžiai: *žmogiškųjų išteklių vertinimas, organizacijos klimatas, sąveika, fenomenas, modelis.*

The article has been reviewed.

Received in March, 2013; accepted in June, 2013.